

## The reactions of 2H-1,2,3-diazaarsoles with phenyl azide

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### Abstract

2-Phenyl-5-methyl- and 2,5-diphenyl-2H-1,2,3-diazaarsoles 1a,b react with phenyl azide to give several crystalline products: tricyclic derivatives 2a,b and 4,4'-bis(2H-1,2,3-diazaarsoles) 5a,b formed at room temperature, and a cycloadduct 6a obtained at + 4°C. Compound 6a undergoes a fast rearrangement in solutions of Et<sub>3</sub>N or pyridine to give a stable dicoordinate arsenic compound, the 2H-1,2,3-diazaarsole 7a. Heating solutions of 2a under reflux in an inert atmosphere leads to 5a and of 2b, in the presence of water, to 4b. The structures of 2a, 4b, and 7a were characterized by X-ray crystal structure determinations. © 1996 John Wiley & Sons, Inc.

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